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REMARKS

Claims 1-3, 18, 19, and 26-33 are pending in the present Application. Claims 1 and 28 have been amended, and Claims 34-39 have been added, leaving Claims 1-3, 18, 19, and 26-39 for consideration upon entry of the present Amendment.

Support for new Claims 34-39 can at least be found in the specification at page 5, lines 8-31 and in the claims as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-2 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by the reference "How Oil Refining Works" (HSW). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Variant Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

In contrast to Applicants' Claim 1, HSW fail to teach supplying a liquid fuel consisting essentially of diesel fuel to a fractional distillation device in fluid communication with a reformer. Rather, HSW teach feeding crude oil into a distillation column. As is illustrated in Figure 2 of the HSW reference, the crude oil comprises "residuals", e.g., coke asphalt, tar. These residuals comprise carbon molecules having a carbon number of greater than or equal to 70. (HSW, page 3). Since the HSW reference teaches feeding crude oil comprising hydrocarbons have a carbon number of 4 to a carbon number of 80, the reference does not teach supplying a liquid fuel consisting essentially of diesel fuel to a fractional distillation device in fluid communication with a reformer. For at least this reason, the HSW reference does not teach each and every limitation of independent Claim 1. Moreover, as dependent claim from an allowable independent claim, Claim 2 is, by definition, also allowable.

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Claim Rejections Under 35 U.S.C. § 103(a)

Claims 3, 18, and 19 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over HSW in view of U.S. Patent No. 4,522,894 to Hwang et al. Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

In making the rejection, the Examiner relied upon Hwang et al. merely for their teaching of an "autothermal reformer". (Col. 5, line 14). However, there is not motivation to combine these references, no expectation of success, and even combined Hwang et al. fail to cure the deficiencies of the HSW reference. More particularly, Hwang et al. do not teach supplying a liquid fuel consisting essentially of diesel fuel to a fractional distillation device in fluid communication with a reformer. Accordingly, Applicants' independent Claim 1 is not obvious over HSW in view of Hwang et al. Therefore, independent Claim 1 is allowable over HSW in view of Hwang et al. Moreover, as dependent claims from an allowable independent claim, Claims 3, 18, and 19 are, by definition, also allowable.

Furthermore with regard to Claim 3, Applicants claim that the diesel fuel comprises hydro-treated diesel fuel. Applicants' respectfully disagree with the Examiner that "[a]ll diesel fuel is hydrotreated." (O.A., page 5). For example, Applicants also teach the use of "non-hydrotreated diesel fuels, which may be more readily available in third world countries." Absent in HSW and Hwang et al., either alone or in combination, is any teaching or suggestion that the diesel fuel is hydro-treated. Accordingly, the Examiner has not made a *prima facie* case of obviousness with regard to Claim 3.

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Claims 1-3, 18, 19, and 26-33 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,686,196 to Singh et al. and U.S. Patent No. 4,382,851 to Angevine et al. Applicants respectfully traverse this rejection.

In making the rejection, the Examiner stated that

Singh is not clear that fractional distillation device is in fluid communication with the reformer however since the claim is drawn to a method of using a strategy, whether the diesel is produced on site or is delivered is not materially different; in both cases the diesel is supplied to a fractional distillation column and thereafter to a reformer. (O.A., Page 6).

Applicants respectfully disagree with the Examiner and respectfully submit that this argument has no basis in patent law. First, it appears that the Examiner is attempting to give some patentable weight to the preamble, specifically the term "strategy" in the preamble. Applicants submit that "a claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). MPEP 2111.02. The Examiner has not shown that the preamble recites a limitation of the claim and has not shown that the preamble is "necessary to give life, meaning, and vitality" to the claim. As such, the preamble should not be construed to limit the claim.

Nevertheless, in an effort to advance prosecution, Applicants have amended the preambles of independent claims 1 and 28 from a "method of using a diesel reforming strategy" to a "method of reforming diesel fuel". More particularly, it is noted that this amendment is made merely for clarity and not to overcome any art made of record. In other words, the Examiner has not made of a *prima facie* case of obviousness.

The Examiner has improperly not considered Applicants' claimed limitation that a fractional distillation device is in fluid communication with a reformer. Furthermore, it is noted that Singh et al. and Angevine et al., either alone or in combination, fail to teach or suggest a fractional distillation device in fluid communication with a reformer. Rather, Singh et al. merely teach that the diesel fuel "supplied to the system comprises refined petroleum distillates...."

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(Col. 2, lines 27-28). Singh et al. further teach that the diesel fuel may be delivered to a reformer unit to reform the diesel fuel to a fuel comprising lower molecular weight hydrocarbons, hydrogen and carbon monoxide. (Col. 3, lines 28-30). Absent is any teaching or suggestion that the diesel fuel is supplied to a fractional distillation device in fluid communication with a reformer.

Furthermore, it is noted that the Examiner relied upon Angevine et al. to "show the distillate diesel from the base feed stock." (O.A., page 6). However, Angevine et al. fail to cure the deficiencies of Singh et al. More particular, Singh et al., either alone or combination with Angevine et al., fail to teach or suggest that the diesel fuel is supplied to a fractional distillation device in fluid communication with a reformer. Rather, Angevine et al. teach "methylation of coal-derived liquids and other polynuclear aromatic distillate feeds for improving distillate fuel quality...." (Abstract). Angevine et al. further teach diesel as a distillate from a fractionator. (Figures, and Col. 4, lines 15-16).

Additionally, with regard to independent Claim 1, it is noted the above-cited references, either alone or in combination, fail to teach or suggest supplying a liquid fuel consisting essentially of diesel fuel to a fractional distillation device in fluid communication with a reformer. Rather, they merely teach diesel fuel as a distillation product from a base feed stock.

Since the combined references at least fail to teach or suggest supplying diesel fuel to a fractional distillation device in fluid communication with a reformer, independent Claims 1 and 28 are not obvious over and are therefore allowable over Singh et al. and Angevine et al. Moreover, as dependent claims from an allowable independent claim, Claims 2-3, 18, 19, 26, 27, and 29-33 are, by definition, also allowable.

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It is believed that the foregoing amendments and remarks fully comply with the Final Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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